

Frequency of Vaginal Candidiasis in Symptomatic Pregnant Women Attending Routine Antenatal Clinic

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ABSTRACT

Aim: To determine the frequency of vaginal candidiasis in clinically symptomatic pregnant women attending routine antenatal clinic.

Methods: The present cross sectional study was conducted in the Outpatient Department of Obstetrics and Gynaecology in association with microbiology laboratory of Pathology, Nishtar Hospital, Multan from September 2014 dated May 2015. A total of 288 women were included in the study.

Results: Among 288 patients presented with symptoms of vaginal candidiasis, the frequency of vaginal candidiasis was 31.6%. The majority of women were multigravida and in the age group 31-40 years. Most of them presented in the third trimester of pregnancy and vaginal discharge was the most frequent finding i.e. in 45% of cases. 17.6% of cases were belonging to low socio-economic class and 15.4% of cases were having previous history of vaginal candidiasis.

Conclusion:- Continuous antenatal screening should be an ongoing exercise for pregnant women with history of itching and vaginal discomfort.

Keywords: Vaginal candidiasis, pregnancy, symptomatic patients.

INTRODUCTION

Candida of yeast is normal commensal organism colonizing in vagina. It only becomes a problem when it grows so fast that it overwhelms other competing micro-organisms¹. Candida is present in the vaginal flora of approximately 20% of healthy women and upto 40% of women are pregnant². Vulvovaginal candidiasis (VVC) is a common gynaecological ailment affecting 3 out of 4 women in their lifetime³. More than 40% of affected women have two or more recurrent episodes⁴. Candida is more common in pregnant women because of altered vaginal PH and higher level of estrogen leads to production of more glycogen which causes the organism to grow faster and stick more easily to the walls of vagina⁵. Although recurrent episodes of vaginal candidiasis are common, a marked proportion of women with chronic and recurrent infection may present first time during pregnancy⁶.

Symptomatic genital candidal infection is a common complaint. It has been estimated that in a general practice with a combined list of 2500 patients about 17 women annually might present with candidosis⁷. Data collected between 1970 and 1980 on 1270 women who were routinely screened in a general practice showed that candida can be found alone or with other genital pathogens in one third,

and that a general practitioner with a combined list of 3500 patients would expect to treat 18 new cases of candidal infection about 38% in pregnant women with 51 women were symptomatic and frequency of vaginal candidiasis in this group is 25%⁸.

Women usually present with itching, burning, soreness, irritation and gray white discharge, dysuria and dyspareunia⁹. Candidal infection during pregnancy must be treated as it can lead to candidal chorioamnionitis with subsequent abortion and preterm deliver, premature ruptures of membranes and subsequent consequences. 70-85% of affected mothers separately contaminate their infants with yeast. Cases of pulmonary candidiasis in such women are also reported¹⁰. During delivery transmission can occur, giving rise to congenital infection especially oral thrush which can give rise to nipple candidiasis in breast feeding mother.

VVC represent saspectrum of disease. Although there is clear need for better use of diagnostic modalities and development of better treatment alternatives, most patients with VVC, even the complicated cases, at least have the perspective of achieving adequate control of their symptoms¹¹. A combination of culture test is more sensitive but it takes longer time to make diagnosis, so gram stain smear is reliable and rapid method in order to treat patients at initial attendance with sensitivity of about 65-68%. Cure rate is 80% for uncomplicated cases, 20% will have treatment failure and it is very difficult to that patient during pregnancy¹². Treatment should be given to all symptomatic patients diagnosed as

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case of vaginal candidiasis diagnosed by gram staining or culture sensitivity¹³.

The objective of the study was to determine the frequency of vaginal candidiasis in clinically symptomatic pregnant women attending routine antenatal clinic.

MATERIAL AND METHODS

The present cross sectional study was conducted in the Outpatient Department of Obstetrics and Gynaecology in association with microbiology laboratory of Pathology, Nishtar Hospital, Multan from September 2014 dated May 2015. A total of 288 women were included in the study. Women in 2nd and 3rd trimester with singleton pregnancy, primigravida and multigravida irrespective of age and symptomatic patients were included in the study. Data was analyzed by SPSS. Mean and SD was calculated for age, gestational age, parity and gravidity.

RESULTS

Among 288 patients presented with symptoms of vaginal candidiasis in the outpatient department during study period, the frequency of 91 (32%). Majority of the patients with symptoms of vaginal candidiasis presented in the 3rd trimester of the pregnancy i.e., 55 (60.4%). The majority of women were in age 31-40 years i.e., 32(35.2%) as shown in table-1. Analysis of parity distribution showed that majority of women were multigravida and only 21.1% were primigravida (Table-2). Among 91 patients of vaginal candidiasis, vaginal discharge was the most frequent finding i.e. 41 (45.1%) of cases (Table-3).

Table 1: Age wise distribution (n=91)

Age (years)	n	%age
<20	12	13.2
21-30	30	33.0
31-40	32	35.2
>40	17	18.7

Table 2: Parity wise distribution (n=91)

Parity	n	%age
G1P0	21	23.1
G2P1	23	23.3
G3P2	28	30.4
G4 or more	19	20.9

DISCUSSION

Vaginitis is one of the principal motives that lead women to seek out an obstetrician or gynaecologist. Despite therapeutic advances, VVC remains a common problem worldwide, affecting all stratus of society¹⁴. The clinical pattern was also a result of the interaction among pathogens, the behaviours that

transmit them and the effectiveness of preventive and control interventions¹⁵. Among 288 patients presented with symptoms of vaginal candidiasis in the outpatient department during the study period, the frequency of vaginal candidiasis was 31.6%. The result of present study are corresponding with a previous study⁸. Some studies have shown high preponderance of vaginal candidiasis in infective vaginal discharge among which studies included 52.3 and 60% isolation rate respectively, of candida species¹⁶.

Due to the fact that candida species is an integral part of normal vaginal flora; mycological diagnosis of vaginal candidiasis is very complex. Microscopic evidence of candida in the vaginal swab and positive cultures on Sabouraud's agar do not necessarily indicate the infection. Therefore, attention should be paid to their morphological form as well as the number of colonies of candida in culture of vaginal swab. However, it is controversial as to whether one of these two criteria is indeed a reliable indicator of infection, and can be correlated with clinical signs and symptoms¹⁷. The majority of women were in age group 31-40 years (35.2%). Age group 20-30 years was next in line (33%). The results generated by the present study are comparable with a study, in which the high incidence of candidiasis was among the age range of 26-30 years¹⁸. The age decade of 21-30 is the most sexually active age group with highest risk of pregnancies, indulgence in family planning pills and immunosuppression due to HIV/AIDS¹⁹.

Analysis of parity distribution showed that majority of women were multigravida and only 23.1% were primigravida. The results of present study are in line with a study, in which the incidence of VVC was doubled in the third trimester of pregnancy and multigravida suffer significantly more than primigravida⁷. Similar results were generated in another study²⁰.

In the present study majority of patients, having symptomatic vaginal candidiasis presented in the third trimester of the pregnancy (60.6%). The result of present study are corresponding with a previous study¹⁸. In a local study, majority of the women were multigravida and all the 50 pregnant females were in their last trimester.

Vaginal candidiasis is a common type of vaginitis, a gynaecologic disorder that manifests with an odorless curdy white discharge in the female lower reproductive tracts with pruritus, irritation, dysuria or dyspareunia²¹. Among 91 patients with vaginal candidiasis in the present study, vaginal discharge was the most frequent finding (40.1%) of cases. 17.6% of cases were belonging to low socio-economic class and 15.4% were having previous

history of vaginal candidiasis. Dysuria was presenting complaint in 5.5% of cases and dyspareunia in 8.8% of cases. Soreness of vagina was reported in 7.7% of cases.

In the present study 18.4% of cases were belonging to low socio-economic class. This finding is not corresponding with a previously conducted study in which low socio-economic class reported in 9%²². Nearly 75% of the candidal infections were observed in people of low socio-economic status in another study that majority of the infection were occur in illiterate women and low socio-economic status²³.

CONCLUSION

Continuous antenatal screening should be an ongoing exercise for pregnant women with history of itching and vaginal discomfort.

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